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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
MEINECKE DIAZ, SUSANNA M	
ART UNIT	PAPER NUMBER
3692	

NOTIFICATION DATE	DELIVERY MODE
08/21/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

Office Action Summary	Application No.	Applicant(s)	
	09/941,491	TEAGUE ET AL.	
	Examiner	Art Unit	
	Susanna M. Diaz	3692	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 May 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9,15-24,29 and 30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,15-24,29 and 30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *5/4/09*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 4, 2009 has been entered.

Claims 1, 6-9, 16, 17, and 30 have been amended.

Claims 1-9, 15-24, 29, and 30 are presented for examination.

Response to Amendment

2. The previously pending rejection of claims 16-24 and 29 under 35 U.S.C. § 101 is withdrawn in response to Applicant's claim amendments.

The previously pending rejections of claims 1-9, 15-24, 29, and 30 under 35 U.S.C. § 112, 2nd are withdrawn in response to Applicant's claim amendments; however, new rejections are applied below.

Response to Arguments

3. Applicant's arguments with respect to claims 1-9, 15-24, 29, and 30 have been considered but are moot in view of the new ground(s) of rejection (particularly the rejections under 35 U.S.C. § 112, 2nd paragraph).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-9, 15-24, 29, and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the functionality of "[monitoring] at least a portion of the trading of said discrete securities in a market with trading occurring outside of a regular trading session of the market being monitored." The phrase "with trading occurring outside of a regular trading session of the market being monitored" describes the market being monitored, but it does not necessarily define when the monitoring occurs. Does the monitoring of at least a portion of the trading of said discrete securities always occur or just during after hours trading periods?

If the monitoring covers an after hours trading period, how is this monitoring relevant to the claimed invention as a whole? The next limitation in claim 1 recites "calculate, based on prices at which the monitored discrete securities trade, the predicted opening index price of the security index for the beginning of the next regular trading session with respect to a closing index price of said security index at the end of the previous regular trading session." If prices are only monitored during the after hours trading period, then how is the predicted opening index price calculated with respect to a closing index price?

Claim 1 also recites “wherein said index prices are indicative of a cumulative value of said discrete securities.” It is not clear to which index prices “said index prices” refer. The only previously recited index prices are "the predicted opening index price of the security index for the beginning of the next regular trading session” and "a closing index price of said security index at the end of the previous regular trading session." If these two index prices are the “index prices” being referenced in the last wherein clause of claim 1, then how are they indicative of a cumulative value of said discrete securities? If one is trying to predict the opening index price of a security index (as set forth in the preamble), then how can such a calculation be based on the predicted opening index price of the security index? Furthermore, how do the after hours trading prices come into play in making such a prediction, if at all? Even though the calculation is “based on prices at which the monitored discrete securities trade,” it is not clear when the monitoring occurs. Thus, it is not clear upon which prices the calculation is based.

Additionally, even if claim 1 were amended to clearly limit all monitoring to after hours trading and the calculations were solely based on a closing index price and after hours pricing, it is still not clear how such data is used to predict an opening index price. An opening index price is often equated to the price at which a security last traded. If securities may be traded after hours, then the last transaction that occurs after hours for each security becomes the last trade for each respective security. Claim 1 would still fail to provide any groundwork for a prediction of an opening index price (which implies more analysis than merely setting the next day's opening index price as the price at which the last trade occurred). At present, there appear to be missing steps that would

otherwise be needed to set forth an actual predictive algorithm. Again, merely setting an opening index price as equal to a price at which a security last traded is not a prediction *per se*. Instead, a prediction would imply some guesswork, ideally based on an educated line of reasoning.

The claims that depend on claim 1 fail to remedy the aforementioned problems and therefore are rejected under the same rationale.

Independent claims 16, 17, and 30 recite similar limitations as those discussed in the rejections of claim 1 under § 112, 2nd paragraph above; therefore, the same rejections apply to claims 16, 17, 30, and their respective dependent claims.

Appropriate correction is required.

Because claims 1-9, 15-24, 29, and 30 are so indefinite, no art rejection is warranted as substantial guesswork would be involved in determining the scope and content of these claims. See In re Steele, 305 F.2d 859, 134 USPQ 292 (CCPA 1962); Ex parte Brummer, 12 USPQ 2d, 1653, 1655 (BdPatApp&Int 1989); and also In re Wilson, 424 F.2d 1382, 165 USPQ 494 (CCPA 1970). However, the Examiner maintains the previously asserted art rejection to convey the Examiner's best understanding of the claimed invention at present.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-3, 16-19, and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Ciampi et al. (U.S. Patent No. 7,167,837).

Ciampi discloses a computer, for calculating a predicted opening index price of a security index price of a security index that includes at least two discrete securities, the computer comprising:

[Claim 1] a processor;

a memory coupled to the processor;

a computer readable medium storing a computer program product comprising instructions to cause the computer to:

monitor at least a portion of the trading of said discrete securities that occur outside of a regular trading session (col. 5, lines 1-14; col. 6, lines 5-39); and

calculate a predicated opening index price of the security index for the beginning of the next regular trading session with respect to a closing index price of said security index at the end of the previous regular trading session, wherein said index prices are indicative of a cumulative value of said discrete securities (col. 6, lines 5-67; col. 7, lines 30-38; col. 8, line 32 though col. 11, line 33; claim 8 of Ciampi);

[Claim 2] further comprising instructions to define said security index including at least two discrete securities (abstract; col. 1, line 57 through col. 2; col. 3, lines 58-67; col. 4, lines 4-6, 32-34, 39-41; col. 7: table 1; col. 11, lines 19-33);

[Claim 3] wherein said instructions to monitor trading are configured to monitor at least a trade price of each monitored trade of said discrete securities (abstract; col. 1, line 57 through col. 2, line 6; col. 3, lines 58-67; col. 4, lines 4-6, 32-34, 39-41; col. 7: table 1; col. 11, lines 19-33).

[Claim 16] Claim 16 recites limitations already addressed by the rejection of claims 1 and 2 above; therefore, the same rejection applies.

[Claims 17-19] Claims 17-19 recite limitations already addressed by the rejection of claims 1-3 above; therefore, the same rejection applies.

[Claim 30] Claim 30 recites limitations already addressed by the rejection of claim 1 above; therefore, the same rejection applies.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 4-9 and 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ciampi et al. (U.S. Patent No. 7,167,837), as applied to claims 1, 3, 17, and 19

above, in view of the Securities and Exchange Commission's release no. 34-41112, file no. SR-CBOE-99-05, entitled "Self-Regulatory Organizations; Order Granting Accelerated Approval of Proposed Rule Change and Notice of Filing and Order Granting Accelerated Approval of Amendment No. 1 to Proposed Rule Change by the Chicago Board Options Exchange, Incorporated Relating to Listing of Options on the Dow Jones E*Commerce Index" (herein referred to as E*Commerce Index).

[Claims 4-9] Ciampi does not explicitly disclose that said security index is a market capitalization weighted index and the cumulative value of the discreet securities is a market capitalization; however, Ciampi performs its analyses on indexes such as the S&P 500 and the NASDAQ 100 (col. 6, lines 27-31), both of which are known to be capitalization-weighted indexes. Furthermore, E*Commerce Index discusses how market capitalization weighted indexes are known and may be determined as follows:

> The E*Commerce Index is calculated on a “modified capitalization-weighted” method. This method is a hybrid between equal weighting (which may pose liquidity concerns for smaller-cap stocks) and weighting (which may result in two of three stocks dominating the index's performance). Under this method, the maximum weight for any stock in the Index will be set to 10%, or “capped,” on the quarterly rebalancing date. The weight of all the remaining stocks shall be market capitalization weighted. Thus, the weights of these remaining stocks are not "capped." For stocks which are not “capped,” index shares will equal “the company’s outstanding common shares. For stocks that are “capped,” index shares will equal their maximum weight, multiplied by the adjusted total market capitalization of the Index, divided by the stock’s closing price on the rebalancing data. The index’s adjusted total market capitalization is the total outstanding market capitalization adjusted

> to reflect the combined weight of all of the "capped" stocks." (E*Commerce Index: ¶ 14)

The E*Commerce Index comprises stocks traded through the facilities of NASDAQ (E*Commerce Index: ¶ 6). The values of the E*Commerce Index are calculated and disseminated in accordance with SEC rules (¶¶ 16-19). E*Commerce Index makes it clear how market capitalization weighted indexes, such as the ones disclosed by Ciampi, are commonly valued based on the cumulative value of the discrete securities, or market capitalization (as recited in claim 4); therefore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify Ciampi to explicitly handle its market capitalization indexes such that the cumulative value of the discrete securities is a market capitalization (claim 4) in order to conform to a common valuation convention for market capitalization weighted indexes while adhering to SEC rules.

Furthermore, regarding claim 5, Ciampi does not explicitly disclose that a predicted opening price calculation process comprises calculating a closing index market capitalization value for said security index, the closing index market capitalization value being the market capitalization value of said security index at the end of the previous regular trading session; however, as seen in ¶ 14 of E*Commerce Index (cited above), the valuation of the index is based on each stock's closing price on the rebalancing date. Also, "market capitalization," by definition, is a measurement of corporate or economic size equal to the stock price times the number of shares outstanding of a public company. Therefore, the Examiner submits that it would have

been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify Ciampi to incorporate a predicted opening price calculation process that comprises calculating a closing index market capitalization value for said security index, the closing index market capitalization value being the market capitalization value of said security index at the end of the previous regular trading session (claim 5) in order to conform to a common valuation convention for market capitalization weighted indexes while adhering to SEC rules.

Regarding claim 6, Ciampi does not explicitly disclose that a predicted opening [price] is calculated by calculating a current index market capitalization value for said security index, with said current index market capitalization value being the current market capitalization value of said security index; however, as seen in ¶ 14 of E*Commerce Index (cited above), the current valuation of the index is based on each stock's closing price on the rebalancing date. Also, "market capitalization," by definition, is a measurement of corporate or economic size equal to the stock price times the number of shares outstanding of a public company. Therefore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify Ciampi to incorporate a predicted opening [price] that is calculated by calculating a current index market capitalization value for said security index, with said current index market capitalization value being the current market capitalization value of said security index (claim 6) in order to conform to a common valuation convention for market capitalization weighted indexes while adhering to SEC rules.

As per claim 7, Ciampi does not explicitly disclose that calculating a predicted opening includes calculating a discrete security market capitalization process for calculating a discrete market capitalization value for each said discrete securities included in said security index, with the discrete market capitalization value being the product of the total number of outstanding shares of each discrete security and the trade price that represents the last trade value of the discrete security; however, as seen in ¶ 14 of E*Commerce Index (cited above), the current valuation of the index is based on each stock's closing price on the rebalancing date and "index shares will equal the company's outstanding common shares" and then certain index shares are multiplied by the adjusted total market capitalization of the Index ("market capitalization," by definition, is a measurement of corporate or economic size equal to the stock price times the number of shares outstanding of a public company). Ciampi and E*Commerce Index both discuss the use of a closing price to assess a current or predict an opening valuation of the index (as discussed above); therefore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify Ciampi such that the step of calculating a predicted opening includes calculating a discrete security market capitalization process for calculating a discrete market capitalization value for each said discrete securities included in said security index, with the discrete market capitalization value being the product of the total number of outstanding shares of each discrete security and the trade price that represents the last trade value of the discrete security (claim 7) in order

to conform to a common valuation convention for market capitalization weighted indexes while adhering to SEC rules.

Regarding claim 8, Ciampi does not explicitly disclose that calculating a predicted opening includes instructions to produce a sum of each of the discrete market capitalization values to determine the current index market capitalization value for the security index; however, as seen in ¶ 14 of E*Commerce Index (cited above), the current valuation of the index is based on each stock's closing price on the rebalancing date. Also, "market capitalization," by definition, is a measurement of corporate or economic size equal to the stock price times the number of shares outstanding of a public company. Therefore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify Ciampi such that calculating a predicted opening includes instructions to produce a sum of each of the discrete market capitalization values to determine the current index market capitalization value for the security index (claim 8) in order to conform to a common valuation convention for market capitalization weighted indexes while adhering to SEC rules.

Regarding claim 9, Ciampi does not explicitly disclose that calculating a predicted opening [price] includes instructions to compare the closing index market capitalization value and the current index market capitalization value to calculate the predicated opening index price of the security index; however, the Ciampi-E*Commerce Index combination discussed above addresses the market capitalization process. Furthermore, Ciampi uses an index valuation to predict opening index price of a security

index, such as Nasdaq 100 or S&P 500 (which are both examples of market capitalization weighted indexes) (col. 6, lines 5-67; col. 7, lines 30-38; col. 8, line 32 though col. 11, line 33; claim 8 of Ciampi); therefore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify Ciampi such that calculating a predicted opening [price] includes instructions to compare the closing index market capitalization value and the current index market capitalization value to calculate the predicated opening index price of the security index (claim 9) in order to conform to a common valuation convention for market capitalization weighted indexes while adhering to SEC rules.

[Claims 20-24] Claims 20-24 recite limitations already addressed by the rejection of claims 1-9 and 15 above; therefore, the same rejection applies.

10. Claims 15 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ciampi et al. (U.S. Patent No. 7,167,837), as applied to claims 1 and 17 above, in view of Delta et al. (US 2002/0156717 A1).

[Claims 15, 29] Ciampi does not explicitly disclose filtering those trades, of the trades that occurred outside of a regular trading session, that were determined to be bad trades, from the trades that occur outside of a regular trading session; however, Delta detects "suspect trades" that occur during extended hours trading (abstract; ¶ 21). Therefore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify Ciampi to filter those trades, of

the trades that occurred outside of a regular trading session, that were determined to be bad trades, from the trades that occur outside of a regular trading session in order to protect traders from making invalid or poorly priced trades during after-hour trading sessions.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susanna M. Diaz whose telephone number is (571) 272-6733. The examiner can normally be reached on Monday-Friday, 8 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Abdi can be reached on (571) 272-6702. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Susanna M. Diaz/
Primary Examiner, Art Unit 3692